

## **REMARKS**

### **1. Restriction/Election of Species**

The Office Action indicated that Applicants' arguments filed on July 2, 2009 pertaining to unity of invention (pg. 8, 7/2/09 Response) in response to prior lack of unity set forth August 20, 2008 for above-referenced application have been further considered. The Office Action dated November 12, 2009 states that upon further consideration restriction of the application is required based on a new lack of unity. Applicants conclude that the restriction requirement set forth on August 20, 2008 has been withdrawn. In the Office Action dated November 12, 2009 it is alleged that the application contains claims directed to two inventions, Group I (composition claims) and Group II (method claims), which are not so linked as to form a single general inventive concept under PCT Rule 13.1. Applicants were required to elect a single invention grouping. In the event Group I (composition claims) is elected, the Office Action suggested Group II (method claims) will be rejoined after allowance of any Group I composition claims as a use of the composition of such allowed claims.

Applicants would like to thank the Examiner for her further consideration of the restriction requirement and comments filed by Applicants' on July 2, 2009 pertaining to unity of invention of the present application.

Applicants hereby elect Group I with traverse. With regard to the requirement to elect a species of compound of Formula 1, Applicants select 2,6,-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methylbenzamide as recited in Claim 17. With regard to the requirement to elect a particular composition, Applicants elect the combination in composition (2), that is a composition comprising (a) at least one compound of Formula 1, (b) at least one compound selected from (b2), and optionally at least one compound selected from (b1), (b3), (b4), (b5), (b6), (b7), (b8), and (b9). With regard to the requirement to elect a third component, Applicants elect component (b6). Applicants identify claims 1, 2, 4-7, 9, 11, 17, 18, 20, 21, and 24-31 (i.e., all remaining claims) as encompassing combinations of 2,6,-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methylbenzamide, famoxadone and metalaxyl in the sense that they include compositions or methods involving those three compounds within their scope and hence are generic; but only composition claims 6, 7, 21, 26, 29, 30 and 31 are generic to a three component invention and involve embodiments that require one component that is or could be the compound of Claim 17 (but not famoxadone or metalaxyl), a second component that is or could be famoxadone (but not the Compound of Claim 17 or metalaxyl) and a third component that is or could be metalaxyl (but not the compound of Claim 17 or famoxadone) .

With regard lack of unity under PCT Rule 13.1 and Rule 13.2, the Office Action indicated that Moloney et al. in U.S. 6,503,933 discloses component (a) compounds such as 2,6-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide, thus component (a) compounds do not constitute a "special technical feature". The Office Action also suggested that it would have been obvious to one of ordinary skill in the art to use 2,6-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide as disclosed by Moloney et al. and combine it with famoxadone and the fungicide metalaxyl as taught by Bereznak et al. in U.S. 6,066,638 and produce the instant invention. The Office Action maintained that a combination of Formula 1 and any component (b1)-(b9) compound would have been obvious over U.S. 6,503,933 and U.S. 6,066,638, thus the combination of component (b) with component (a) does not constitute a "special technical feature". Further, the Office Action stated Groups I and II do not relate to a single invention because the technical feature linking these Groups is not a "special technical feature". Applicants respectfully disagree that the combination of component (a) and component (b2) would have been obvious to one of ordinary skill in the art in view of U.S. 6,503,933 and U.S. 6,066,638. Applicants submit that Col. 68, lines 58-64 of Bereznak et al. does not suggest combining famoxadone, or any other (b2) compound, with a component (a) compound; and that instead this disclosure is limited to a discussion of combinations including certain fungicidal fused-ring pyrimidinones that are not structurally related to component (a) compounds of the present invention that include both a substituted pyridinyl ring and a substituted phenyl ring that are structurally separated from each other. Applicants further submit that while Col. 3, lines 29-32 of Moloney et al. indicates generally that the compositions can comprise other actives, it does not specifically disclose famoxadone or any other (b2) compound or suggest that (b2) compounds should be combined. Moreover, Applicants submit that Moloney et al. does not disclose or suggest that combinations with (b2) compounds will provide advantageous results as disclosed by Applicants. Applicants submit that the Moloney et al. passage merely suggests to one of ordinary skill that the compositions could be formulated with other actives or could be formulated without other actives, without suggesting whether either alternative should be selected. Applicants submit that this cannot be characterized as making obvious advantageous combinations involving component (a) and component (b2) of the present claims, especially advantageous combinations involving the compound of 2,6-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide and famoxadone. Accordingly, Applicants object to all separate claim groupings that rely on this assertion of obviousness.

## **2. Claim Rejections--35 U.S.C. § 103(a)**

In the Office Action claims 1-2, 4-7, 17, and 29-31 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. 6,503,933 to Moloney et al. in light of U.S. 6,066,638 to Bereznak et al. and a Jordan et al. article entitled "mode of action of famoxadone". The

Office Action maintained that Moloney et al. discloses component (a) compounds such as 2,6-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide, Bereznak et al. discloses famoxadone as an “agricultural protectant” that can be mixed with certain fungicidal pyrimidinones, and that Jordan et al. discloses that famoxadone is an inhibitor of mitochondrial electron transport, specifically inhibiting the function of enzyme ubiquinol:cytochrome c oxidoreductase (cytochrome bc1). The Office action further indicated that Bereznak et al. also teaches metalaxyl as a fungicide that can be mixed with one or more other fungicides for an even broader spectrum of agricultural protection; and that Jordan et al. also teaches that metalaxyl is a known fungicide. The Office Action suggested that it would have been obvious to use 2,6-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide as disclosed by Moloney et al. and combine it with the “agricultural protectant” famoxadone and the fungicide metalaxyl as taught by Bereznak et al. and produce the instant invention. The Office Action suggested that one of ordinary skill in the art would have been motivated to do this because Moloney et al. teaches (col. 3, lines 29-32) that the compositions therein can include additional active ingredients (e.g., compounds known to possess fungicidal properties), metalaxyl is a known fungicide (as evidenced by Bereznak et al. and Jordan et al.) and Bereznak et al. teaches (col. 68, lines 58-64) the advantage of combining compounds with fungicidal properties as having an even broader spectrum of agricultural protection. The Office Action further indicated regarding claims 1-2, 4-7, 17, and 29-30 that the composition comprising components (a), (b2) and (b6) would have been obvious over the compound 2,6-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide as disclosed by Moloney et al. (a component (a) compound) in view of the combination of this component with an agricultural protectant famoxadone and the fungicide metalaxyl as taught by Bereznak et al.; and regarding Claim 7 that the weight ratios would have been obvious to one of ordinary skill in the art because during the process of routine experimentation, titration of various levels of components would be carried out in order to optimize the efficacy of the composition in controlling fungal pathogens in plants.

Applicants submit that Col. 68, line 58 to Col. 70, line 39 of Bereznak et al. does not suggest combining famoxadone (or any other (b2) compound) or metalaxyl (or any other (b6) compound) with a component (a) compound; and that instead this disclosure is limited to a discussion of combinations including certain fungicidal fused-ring pyrimidinones that are not structurally related to component (a) compounds of the present invention that include both a substituted pyridinyl ring and a substituted phenyl ring that are structurally separated from each other. In fact, the compounds of Bereznak et al. invention correspond to (b7) compounds of the present disclosure (see the bottom of page 39). Bereznak et al. thus provides examples of compound 37 therein with 5-methyl-5-(4-phenoyphenyl)-3-phenylamino-2,4-oxazolidinedione (i.e., the famoxadone active) and compound 41 therein

with 5-methyl-5-(4-phenoyphenyl)-3-phenylamino-2,4-oxazolidinedione (see Column 70, lines 14-16 & 33-35). Applicants further submit that while Col. 3, lines 29-32 of Moloney et al. indicates generally that the compositions can comprise other actives, it does not specifically disclose famoxadone (or any other (b2) compound) or metalaxyl (or any other (b6) compound) or suggest that (b2) and (b6) compounds should be combined. Moreover, Applicants submit that Moloney et al. does not disclose or suggest that combinations with (b2) compounds will provide advantageous results as disclosed by Applicants.

More particularly, Applicants note that it is the present specification (and not Moloney et al. and/or Bereznak et al.) that illustrates that component (a) compounds can be combined with component (b2) compounds to give unexpected results for the treatment of *Phytophthora infestans* (see Table A). Applicants submit that this is sufficient to support the patentability of Claim 1 compositions over Moloney et al. and Bereznak et al.

Furthermore, Applicants submit that neither Moloney et al. nor Bereznak et al. disclose or suggest synergistic combination of famoxadone with 2,6-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide in a manner illustrated by Applicants in the present application. Bereznak et al. discloses that the certain fungicidal pyrimidinones therein can be combined with certain other fungicides (e.g., famoxadone) to provide a broader spectrum of control of plant pathogens and in certain instances can be useful for resistance management. Applicants submit that the concept of providing synergism is fundamentally different from providing a broader spectrum of control or providing effectiveness for resistance management, as it involves the cooperative action of at least two components of a mixture, such that the total effect is greater or more prolonged than the sum of the effects of components when taken independently as described in the specification (see page 2, lines 10-13). Applicants submit that the optimal interaction associated with synergy relies both on the cooperative action of the two components, and whether the components exhibit a complementary physiochemical profile, including the necessary electronic, steric, and conformational properties; and that there is no expectation that this will be achieved prior to actually mixing the components. Accordingly, Applicants submit that one seeking synergistic control of Oomycetes such as *Phytophthora infestans* (e.g., to achieve lower overall use rates) would clearly not be led by Bereznak et al. to select famoxadone from the many candidates listed therein for potential combination with the pyrimidinones compounds of Bereznak et al., and then combine it with 2,6-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]-benzamide to achieve the sought-after synergistic control.

With regard to claims 7 and 31, Applicants note these claims includes certain component ratio limitations. Applicants also note in particular that Claim 7 calls for a weight

ratio of component (b2) to component (a) which is 1:1 or higher (i.e., up to 10:1). Applicants submit that use of this high proportion of component (b2) relative to component (a) is a combination that can be considered particularly advantageous for the control of *Phytophthora infestans* in light of the results in Table A of this application. Applicants submit that neither Moloney et al. nor Bereznak et al. disclose or fairly suggest use of this relatively high proportion of component (b2).

In sum, Applicants submit that the advantageous combination of component (a) with component (b2) is a feature sufficient to support examination and allowance of all of the claims pending in this application. Applicants have identified recent examples of U.S. patents (U.S. Patent No 7,173,049, U.S. Patent No. 7,288,555 and U.S. Patent No. 7,326,725) where reportedly advantageous combinations of 2,6-dichloro-*N*-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide (or structurally related compounds) with other compounds appear to provide a basis for patentability. Applicants have further identified an example of a U.S. patent (U.S. Patent No. 5,948,805) based on an advantageous combination of 5-methyl-5-(4-phenoxyphenyl)-3-phenylamino-2,4-oxazolidinedione with another compound; and an example of a U.S. patent (U.S. Patent No. 6,753,339) where claims depending from a claim to a fungicidal composition comprising a synergistic fungicidally effective amount of two components are directed to a composition including another fungicidal active material are (see claims 2 and 10 therein). For the reasons discussed above, Applicants submit that none of the documents applied in the Office Action disclose or fairly suggest the component (a) and component (b2) combinations disclosed and claimed by Applicants in the present application, especially when those combinations are used in further combination with other components such as the (b6) compound, metalaxyl.

In view of the foregoing, allowance of the above-referenced application is respectfully requested.

Respectfully submitted,

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